

REMARKS

The Applicant thanks the Examiner for the thorough consideration given the present application. Claims 1-17 are currently being prosecuted. Claims 1, 2, 6, 8, and 15 have been amended, and claim 17 has been added. Claims 1 and 8 are independent. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks set forth herein.

Claim for Priority

It is gratefully acknowledged that the Examiner has recognized the Applicant's claim for foreign priority. In view of the fact that the Applicant's claim for foreign priority has been perfected, no additional action is required from the Applicant at this time.

Drawings

The Applicant has not received a Notice of Draftsperson's Patent Drawing Review, Form PTO-948, indicating whether the formal drawings have been approved by the Draftsperson. Clarification with the next official communication is respectfully requested.

Acknowledgement of Information Disclosure Statement

The Examiner has acknowledged receipt of the Information Disclosure Statement filed September 29, 2000. An initialed copy of the PTO-1449 has been received from the Examiner. No further action is necessary at this time.

Rejections under 35 U.S.C. §102(e) and §103(a)

Claims 1, 3-11, and 14 stand rejected under 35 U.S.C. §102(e) as being anticipated by Takagi et al. (WO 97/33359). Further, claims 2, 12, and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takagi et al. in view of Harms (U.S. 4,668,898). In addition, claims 15 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Takagi et al. in view of Okada (U.S. 5,444,314).

These rejections are respectfully traversed.

In response, the Applicants have amended independent claims 1 and 8 of the present application to include a novel combination of elements not taught or suggested by the prior art cited by the Examiner.

Specifically, the present invention as set forth in instantly amended independent claim 1 is directed to a motor-assisted drive unit having a combination of elements, including a control board having a first region overlapped with the motor, and a second region not overlapped with the motor.

Also, the present invention as set forth in instantly amended independent claim 8 is directed to a motor-assisted drive unit having a combination of elements, including a first control board having a region overlapped with the motor, and a second control board having a region not overlapped with the motor.

The Examiner's attention is directed to Figs. 1 and 11, which clearly show the relationship of the control boards 135 and 136 to the motor 21. First control board (first

region) 135 overlaps with the motor, whereas the second control board (second region) 136 does not overlap with the motor.

The Applicant respectfully submits that none of the prior art references cited by the Examiner teaches or suggests a control board having a region that does not overlap with the motor. The control boards of all the referenced prior art are completely overlapped with the motor.

The Takagi patent merely discloses elements 21 and 22 having the same size; the Harms et al. patent merely discloses control board 21 and heat-dissipating means 19 having the similar outer dimensions; and the Okada patent merely discloses a single circuit board 12. All of the control boards disclosed in the prior art cited by the Examiner completely overlap with the motor.

Claims 1 and 8 are in condition for allowance.

Regarding the dependent claims, which stand rejected under either 35 U.S.C. §102(e) or §103(a), these claims are now allowable due to their dependence on allowable claims 1 and 8, respectively, as well as for the additional novel limitations contained therein.

Accordingly, the Applicant respectfully submits that all claims of the present application should now be deemed allowable.

CONCLUSION

In view of the above amendments and remarks, reconsideration and withdrawal of the rejections and allowance of all of the claims are respectfully requested.

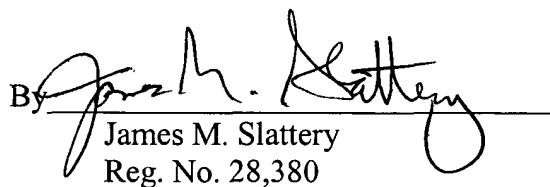
Since the remaining patents cited by the Examiner have not been utilized to reject claims, but merely to show the state of the art, no comment need be made with respect thereto.


All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 205-8000.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,
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Attachment
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claims 1, 2, 6, 8, and 11 as follows:

1. (Amended) A motor-assisted drive unit for a vehicle, comprising:
a motor having a shaft for providing power to a drive wheel of the vehicle; and
a control board on which control devices of said motor are mounted, the control board being arranged substantially perpendicularly to the [motor] shaft of said motor, at least part of the control board extending to a position overlapped with said motor, said control board having a first region overlapped with said motor, and a second region not overlapped with said motor.
2. (Amended) The motor-assisted drive unit of claim 1, wherein one of the control devices is a processing unit, the processing unit being mounted on a [portion] first region of the control board overlapped with said motor so as to project into a gap between [an] the overlapped [portion] region of the control board and the motor.
6. (Amended) The motor-assisted drive unit of claim 5, wherein at least part of the thermally conductive board abuts the semiconductor device.

8. (Amended) A motor-assisted drive unit for a motor-assisted vehicle, comprising:

a motor for providing power to a drive wheel of the vehicle;

a first control board having at least one control device mounted thereon; and

a second control board having at least one control device mounted thereon, wherein the first and second control boards extend in a direction substantially perpendicular to a motor shaft of the motor, and the second control board is overlapped with at least a part of the first control board, said first control board having a region overlapped with the motor, and said second control board having a region not overlapped with the motor.

15. (Amended) The motor-assisted drive unit of claim 4, wherein the control board is elastically supported by [a] an annular rubber member disposed around a casing boss portion [for rotatably supporting] of the motor shaft [of the motor].

Claim 17 is added.